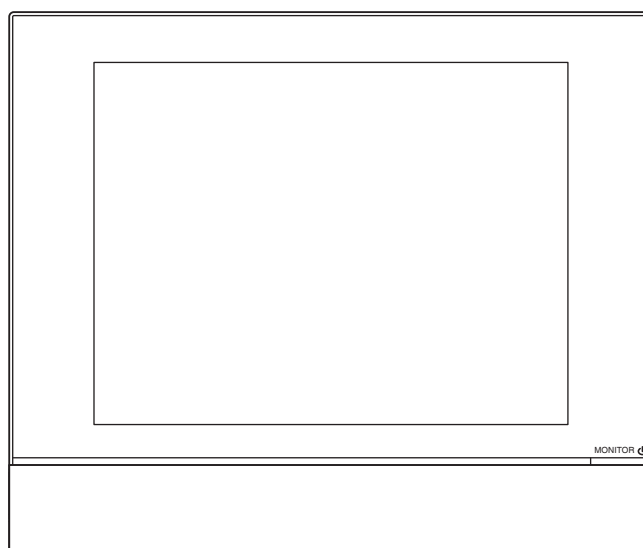




Commissioning Manual Supplementary Volume

intelligent Touch Manager Energy Navigator Setup

Model
DCM601A51



Contents

Energy Navigator Setup.....2

- Log into the service mode 7
- Configure the source from which to obtain the room temperature 9
- Configure the month when to start data collection 11
- Configure an additional energy conversion type 12
- Data Clear 13

Energy Navigator Setup

Energy Navigator assists equipment administrators in implementing systematic operations management by analyzing the operational status of the equipment, formulating energy saving plans, establishing equipment operations standards necessary to achieve energy saving goals.

Energy Navigator consists of the following four main functional areas:

	Function	Summary
Energy Navigator	(1) Budget/Actual Energy Management	Budget/Actual Energy Management visualizes the yearly and monthly progress of the actual energy consumption goals with respect to the planned energy consumption and also provides functionality to compare the actual energy consumption of the current year with that of the previous year.
	(2) Equipment Operations Management (Identification of deviation from operations plans)	Equipment Operations Management identifies and visualizes any equipment systems that are or were running during the hours when they are supposed to stop and any air conditioners that are running beyond the set temperature range set forth as part of the air conditioner operations plans.
	(3) Data Export	Data Export allows you to export measurement data to a CSV format so that you can perform advanced analysis on the data using external software.
	(4) Commissioning	Commissioning allows you to configure settings necessary to take the advantage of Energy Navigator. This function is available in the service mode only.

Energy Navigator can address various needs but depending on how your equipment is engineered, such as whether or not watt-hour meters are installed and whether or not the commissioning process for Power Proportional Distribution has been completed.

Target user	What is needed	Engineering details		Overview of available functionality	
		Availability of Meters installed	Trial Power Proportional Distribution	Budget/Actual Energy Management	Equipment Operations Management
Equipment administrator	(1) Ability to easily gain visibility into the operational status of the equipment.	×	×	△ - Manage actual energy consumption based on billing statements	△ - Identify deviation from equipment operations plans - Visualize, based on CT values, how the energy consumption is affected by deviations of in-house air conditioners from operations plans
	(2) Ability to perform budget/actual management of the whole energy consumed by the building and to ensure that equipment operations comply with operations plans.	○	×	○ - Budget/actual energy management with watt-hour meters	△ - Identify deviation from equipment operations plans - Visualize, based on CT values, how the energy consumption is affected by deviations of in-house air conditioners from operations plans
	(3) Ability to perform extensive energy management of equipment systems that are among the largest energy consumers in the building as well as air conditioners that have great opportunities for operational improvement.	×	○	△ - Manage actual energy consumption based on billing statements	○ - Identify deviation from equipment operations plans - Visualize the waste of energy due to deviations of in-house air conditioners from operations plans
	(4) Ability to perform budget/actual management of the whole energy consumed by the building and to efficiently achieve energy saving goals.	○	○	○ - Budget/actual energy management with watt-hour meters	○ - Identify deviation from equipment operations plans - Visualize the waste of energy due to deviations of in-house air conditioners from operations plans

Legend ○ : Yes × : No

Legend ○: Available
△: Available in part
× : Unavailable

The following table describes how the availability of each of Budget/Actual Management and Equipment Operations Management depends on the engineering details:

Engineering details		Energy budget/actual management function			
Availability of meters	Availability of energy consumption plan	(Monthly) Energy consumption estimation function	Energy budget/actual visualization function		
			Annual energy budget/actual visualization function	Monthly energy budget/actual visualization function	Year-to-year energy comparison function
Yes	Yes	○	○	○	○
Yes	No	×	△	△	○
No	Yes	×	○ (Budget/actual can be visualized by manually entering the actual energy consumption)	×	○ (Available by manually entering the actual energy consumption)
No	No	×	△	×	○ (Available by manually entering the actual energy consumption)

Engineering details		Energy budget/actual management function				
Availability of meters	Availability of energy consumption plan	Energy consumption plan registration function	Actual energy consumption registration function	Energy Group registration function	Energy type/Energy conversion factor registration function	
					Energy type registration function	Energy conversion factor registration function
Yes	Yes	○	○	○	○	○
Yes	No	○	○	○	○	○
No	Yes	○	○	○ (Creation of group to which to manually enter the actual energy consumption)	○	○
No	No	○	○	○ (Creation of group to which to manually enter the actual energy consumption)	○	○

○: Available
△: Some functions available
×: Unavailable

Engineering details		Equipment operation management		
Trial Power Proportional Distribution	Operation rules	Operation rule creation function	Sampling period/target setup function	
			Sampling period setup function	Sampling target setup function
Yes	Yes	○	○	○
Yes	No	○	○	○
No	Yes	○	○	○
No	No	○	○	○

Engineering details		Equipment operation management	
Trial Power Proportional Distribution	Operation rules	Failure to turn off sampling function	
		Failure to turn off sampling result display function	Detailed display function
Yes	Yes	○	○
Yes	No	△ (Sampling possible by default rule)	○
No	Yes	△ (Displays power consumed during failure to turn off, based on CT value.)	○
No	No	△ (Displays power consumed during failure to turn off, based on CT value.) (Sampling possible by default rule)	○

Engineering details		Equipment operation management	
Trial Power Proportional Distribution	Operation rules	Setpoint gap sampling function	
		Setpoint gap sampling function	Detailed display function
Yes	Yes	○	○
Yes	No	△ (Sampling possible by default rule)	○
No	Yes	△ (Displays power consumption when there is setpoint gap, based on CT value.)	○
No	No	△ (Displays power consumption when there is setpoint gap, based on CT value.) (Sampling possible by default rule)	○

○: Available

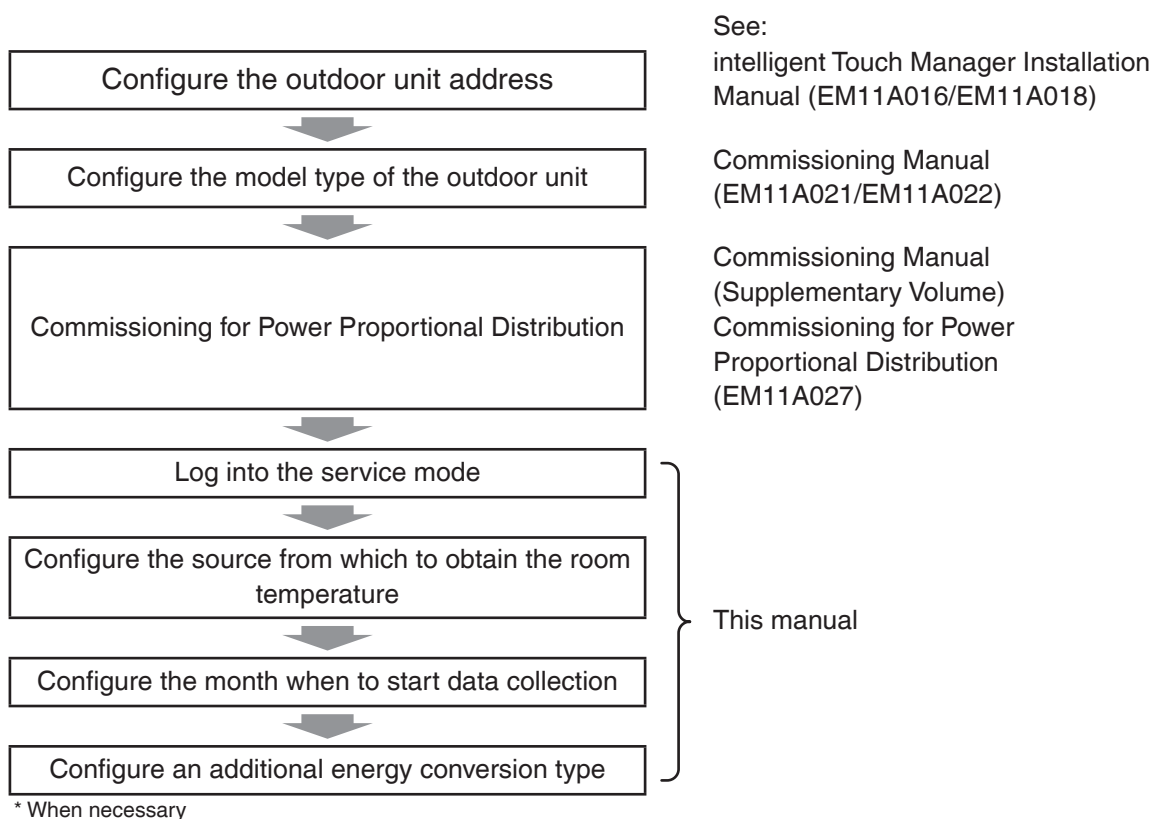
△: Some functions available

×: Unavailable

You need the outdoor unit address to use Energy Navigator. Configure the outdoor unit address in advance (see the intelligent Touch Manager Installation Manual (EM11A016/EM11A018)).

For information on how the administrator can configure and use the function, refer to the appropriate sections of the User Manual.

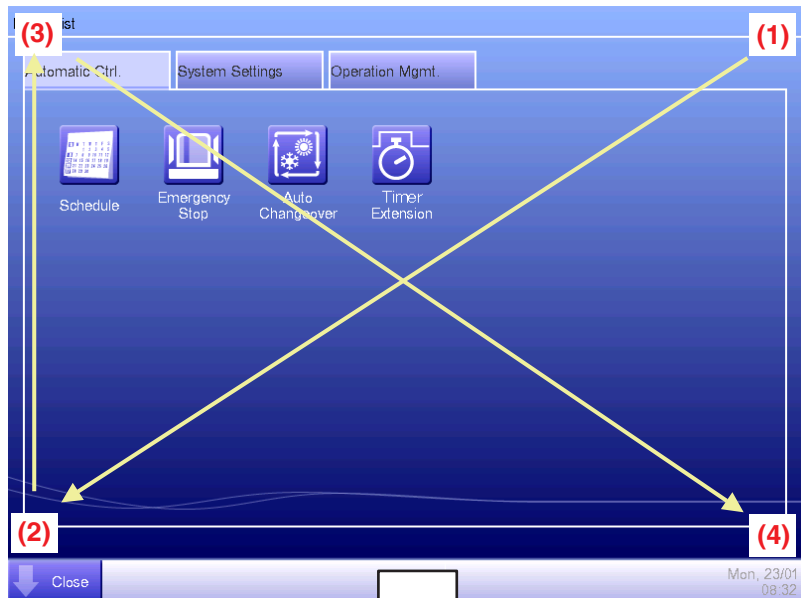
The remaining part of this manual provides the procedures for commissioning.



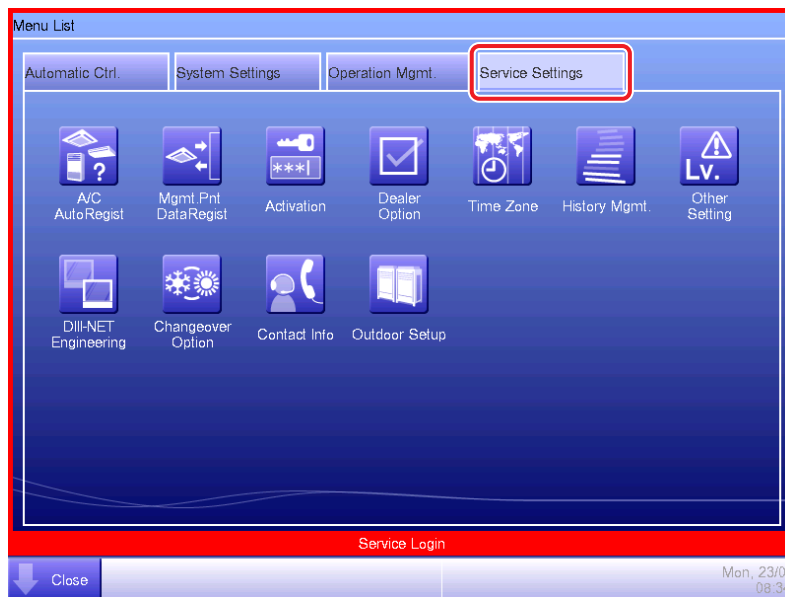
Log into the service mode

Display the Menu List screen.

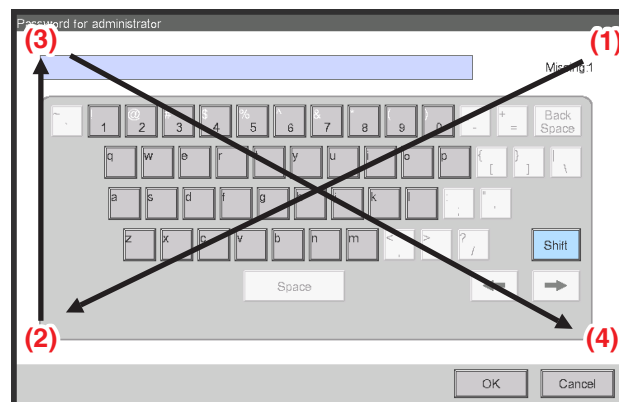
Touch the four corners of the screen in the indicated order. The Password Input dialog appears.



Enter the service password (daikin) and touch the OK button to log into the SE Mode.



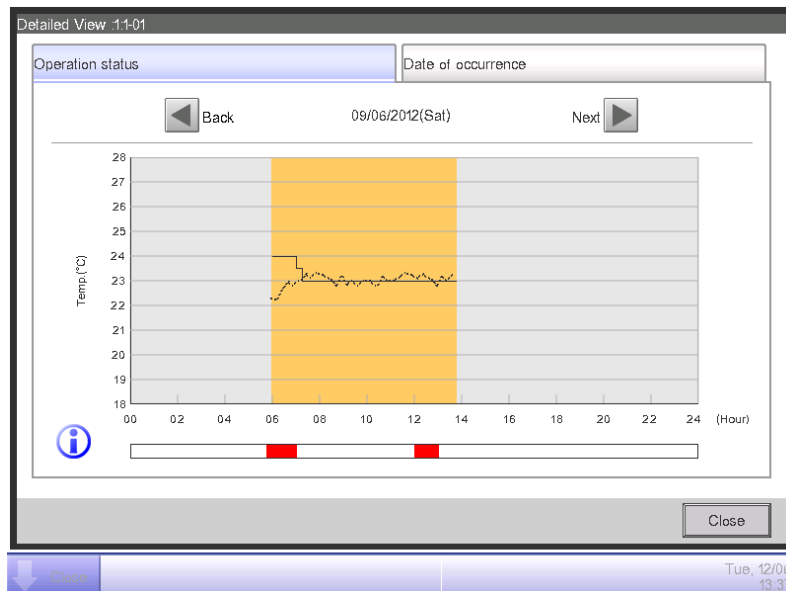
Furthermore, if the screen is locked, entering the service password instead of the administrator password after carrying out the special operation indicated below, allows you to unlock the screen and log into the SE Mode.



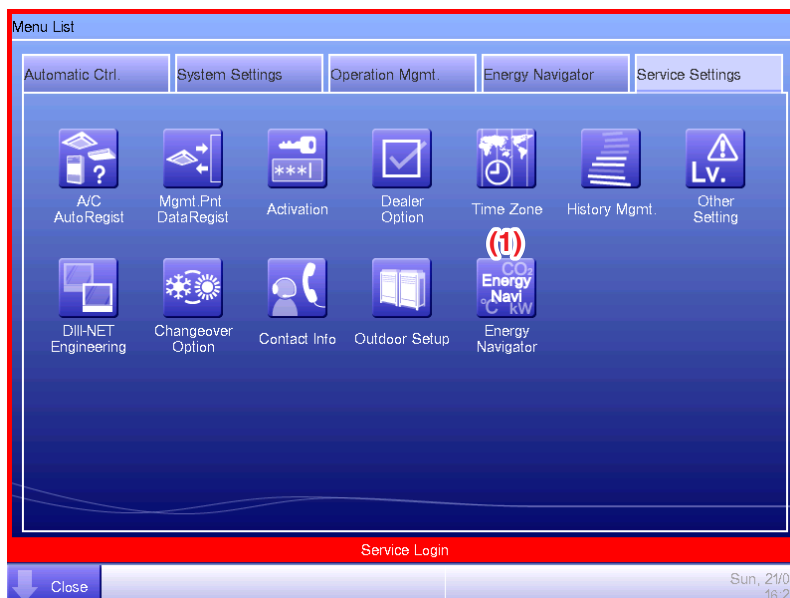
Configure the source from which to obtain the room temperature

Configure the source from which to obtain the room temperature that will be displayed on the Operational Status graph on the Detailed View screen accessible from Energy Navigator's Failure to Turn Off sampling screen and Setpoint Gap sampling screen.

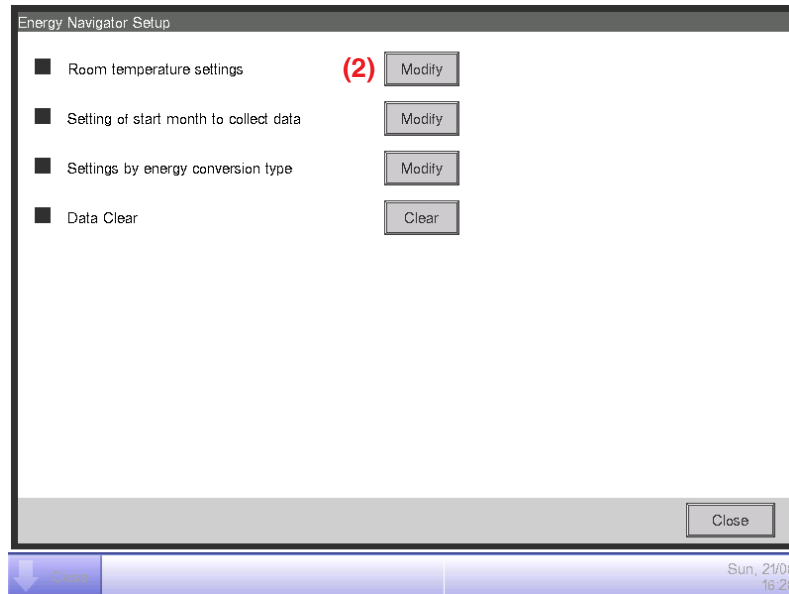
*Detailed View screen (operational state)



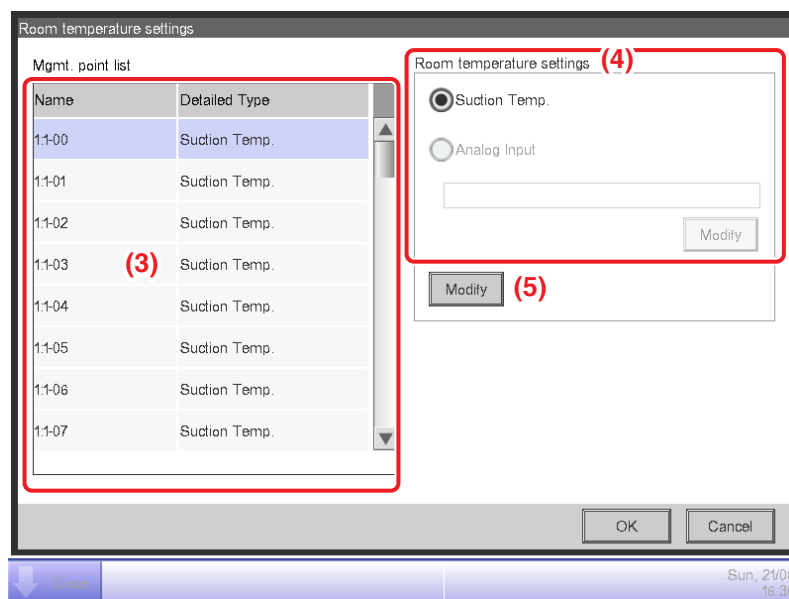
On the service mode Menu List window, select and open the Service Settings tab.



Touch the **Energy Navigator** button (1) to bring up the Energy Navigator Setup window.



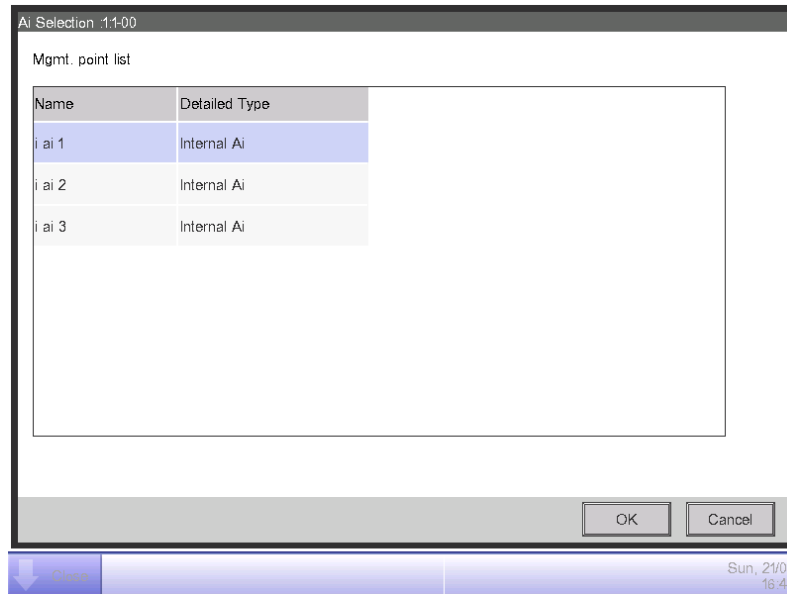
Touch the **Modify** button (2) to bring up the Room temperature settings window.



The Mgmt. point list box (3) provides a list of registered indoor unit management points.

Select your desired management point from this list, which shows management point names along with their current settings. Specify whether to use the suction temperature or analogue input (Ai) as the source of the room temperature by selecting either of the two radio buttons under **Room temperature settings (4)**.

If you have chosen Ai, touch the Modify button to bring up the Ai Selection window.



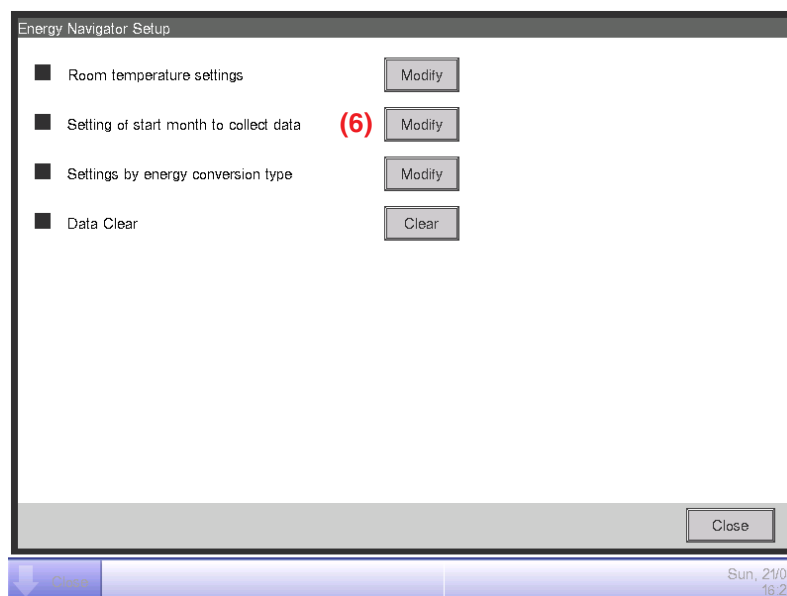
Select your desired Ai management point from the list and then touch the OK button to return to the Room temperature settings window.

The selection you made using the radio button group (4) is saved when you touch the **Modify** button (5). The list (3) is updated to reflect the change.

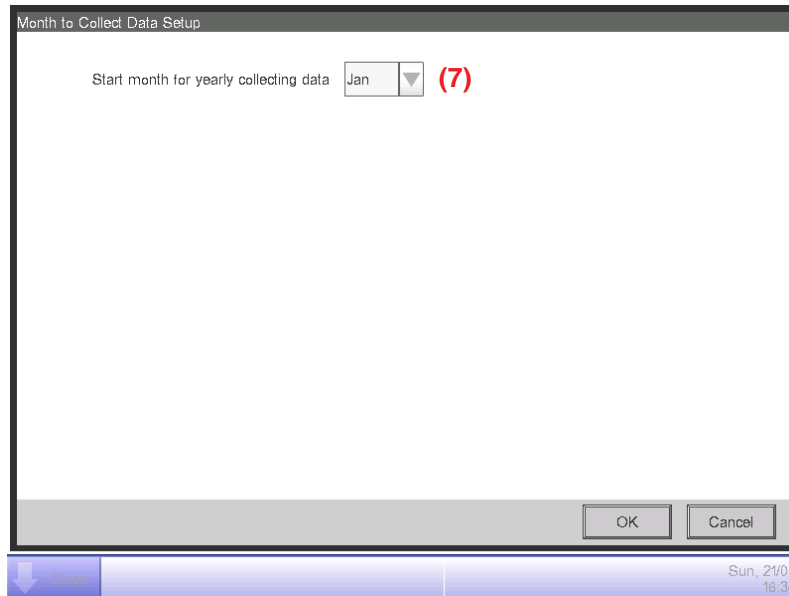
Repeat the steps above to configure all of the indoor unit management points. When you are done, touch the OK button to save the settings and return to the Energy Navigator Setup window.

Configure the month when to start data collection

To configure the month when to start data collection, use the following procedure:



Touch the **Modify** button (6) to bring up the Month to Collect Data Setup window.

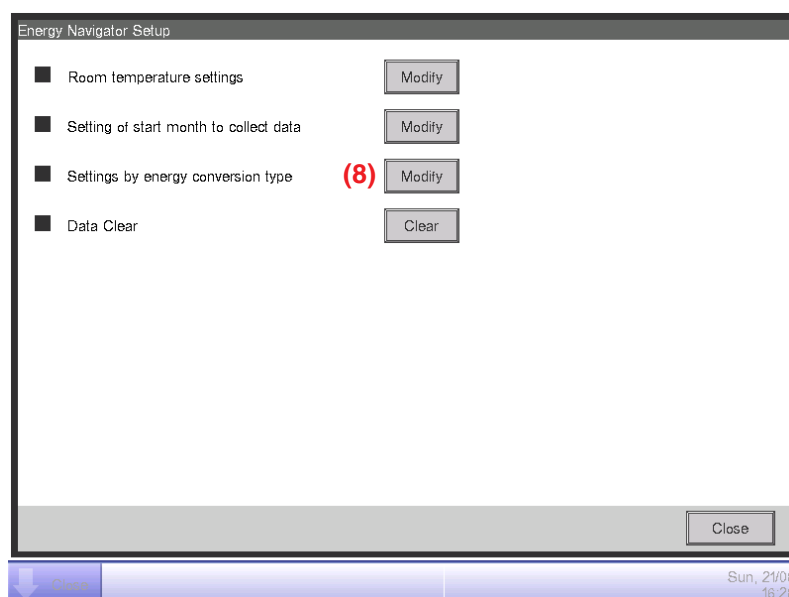


From the **Start month for yearly collecting data** combo box (7), select the month (January through December) when to begin collecting the data for use on the annual budget/actual management graph.

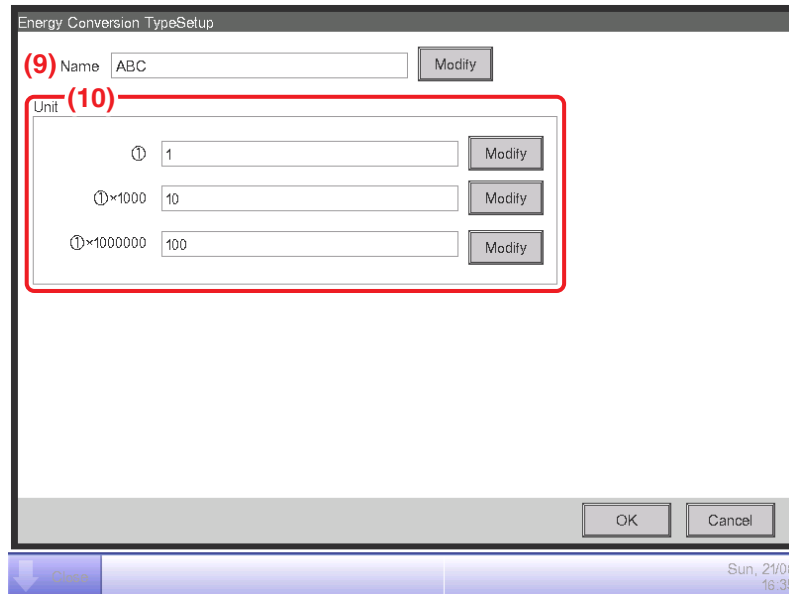
Touch the OK button. On the confirmation dialog box that appears, touch the Yes button to save the settings and restart iTM.

Configure an additional energy conversion type

You can configure an additional energy conversion type for use in Budget/Actual Energy Management as needed.



Touch the **Modify** button (8) to bring up the Energy Conversion TypeSetup window.



The image shows the 'Energy Conversion TypeSetup' dialog box. At the top, there is a 'Name' field with the value 'ABC' and a 'Modify' button next to it, labeled with a red (9). Below this is a 'Unit' section, labeled with a red (10), which is enclosed in a red rectangular box. This section contains three rows, each with a unit multiplier, a text input field, and a 'Modify' button:

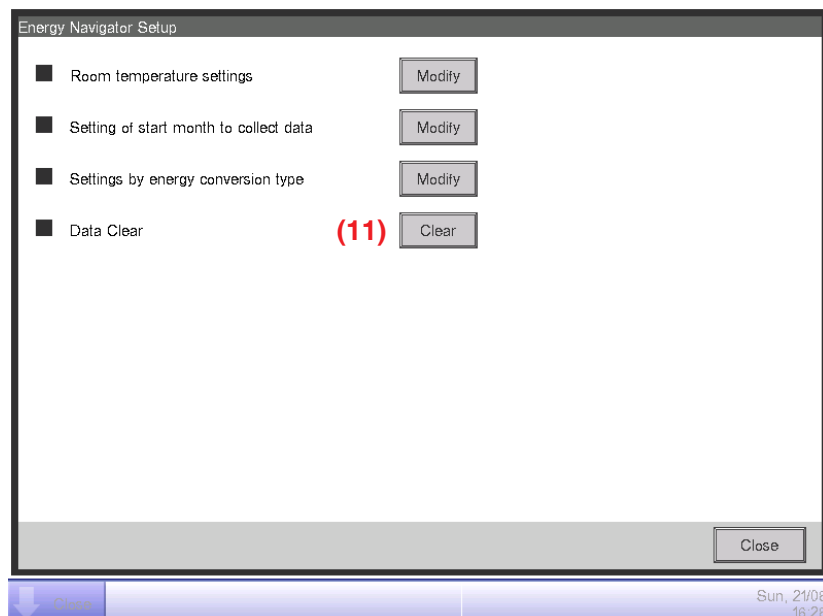
- Row 1: '1' multiplier, input field containing '1', and a 'Modify' button.
- Row 2: 'x1000' multiplier, input field containing '10', and a 'Modify' button.
- Row 3: 'x1000000' multiplier, input field containing '100', and a 'Modify' button.

 At the bottom of the dialog are 'OK' and 'Cancel' buttons. A status bar at the very bottom shows a 'Close' button with a downward arrow, the date 'Sun, 21/08', and the time '16:35'.

Fill in the **Name (9)** and **Unit (10)** fields, and specify the x1,000 and x1,000,000 units. To fill in each field, use a text input dialog box that appears when you touch the Modify next to the field.

When you are done, touch the OK button. On the confirmation dialog box that appears, touch the Yes button to save the settings and restart iTM.

Data Clear



The image shows the 'Energy Navigator Setup' dialog box. It contains a list of four settings, each with a 'Modify' button:

- Room temperature settings
- Setting of start month to collect data
- Settings by energy conversion type
- Data Clear (labeled with a red (11))

 The 'Data Clear' item has a 'Clear' button next to it. At the bottom right of the dialog is a 'Close' button. A status bar at the very bottom shows a 'Close' button with a downward arrow, the date 'Sun, 21/08', and the time '16:28'.

You can clear the trend data as needed.

Touch the **Clear** button (11). On the confirmation dialog box that appears, touch the Yes button to clear the data and restart iTM.

DAIKIN INDUSTRIES, LTD.

Head office:
Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,
Kita-ku, Osaka, 530-8323 Japan

Tokyo office:
JR Shinagawa East Bldg., 2-18-1, Konan,
Minato-ku, Tokyo, 108-0075 Japan

DAIKIN EUROPE N.V.

Zandvoordestraat 300, B-8400 Oostende, Belgium